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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,904	10/28/2003	Yoshinori Nakajima	P24496	3940
7055 7590 09/20/2007 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER NGUYEN, TU T	
			ART UNIT 2886	PAPER NUMBER
			NOTIFICATION DATE 09/20/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/693,904

Applicant(s)

NAKAJIMA ET AL.

Examiner

Tu T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-13 and 16-20 is/are allowed.
- 6) ☒ Claim(s) 1-10 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 06/14/2007.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-13, 16-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nozawa et al (5,548,393).

With respect to claims 1,3, Nozawa discloses a refractometer for measuring a sample comprising: a prism 15 (fig 1) having an interface surface 80 (fig 1) for contacting said sample 8 (fig 1); a light source 111 (fig 1) configured to radiate light so that the light enters the prism through an entrance face of said prism and irradiates said interface surface; and a photoelectric sensor 12 (fig 1) configured to receive light reflected from said interface surface prism through an exit face of said prism, wherein said light source and said photoelectric sensor are attached to said entrance face and exit face of said prism, respectively (fig 1 or column 8, lines 10-13).

Nozawa does not explicitly disclose measuring refractive index of the sample. However, the recitation "measuring refractive index of the sample" has not been given

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patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Even though the recitation "measuring refractive index of the sample" had been given patentable weight. The claimed limitation would have been obvious. It would have been obvious to one ordinary skill in the art to modify Nozawa to measure different characteristics of the sample for different intended purposes.

With respect to claim 2, Nozawa discloses a flat light emitting surface 111 (fig 1).

Claims 1,3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herve (FR 2578978).

With respect to claims 1,3, Herve discloses a refractometer for measuring a sample comprising: a prism 1 (fig 2) having an interface surface 4 (fig 2) for contacting said sample 5 (fig 2); a light source 6 (fig 2) configured to radiate light so that the light enters the prism through an entrance face of said prism and irradiates said interface surface; and a photoelectric sensor 10 (fig 2) configured to receive light reflected from said interface surface prism through an exit face of said prism, wherein said light source

and said photoelectric sensor are attached to said entrance face and exit face of said prism, respectively (figs 2 for the sensor and fig 3 for the light source).

Herve does not explicitly disclose measuring refractive index of the sample. However, the recitation "measuring refractive index of the sample" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Even though the recitation "measuring refractive index of the sample" had been given patentable weight. The claimed limitation would have been obvious. It would have been obvious to one ordinary skill in the art to modify Herve to measure different characteristics of the sample for different intended purposes.

Claims 4,21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nozawa et al (5,548,393) in view of Ammelder (DE 199 10 301 A1).

With respect to claim 4, Nozawa does not disclose a slit. Ammelder discloses a refractometer having a slit 1 (fig 1 or column 3, lines 37-39) as claimed. it would have been obvious to modify Nozawa with the slit taught by Ammelder to control the shape of the testing beam easier.

With respect to claim 21, refer to discussion in claim 1 above for the refractometer and claim 4 above for the slit. Ammelder does not disclose a slit extending in a direction perpendicular to a plane-of-incidence of said interface surface. However, it would have been obvious to modify Ammelder with a slit having the direction as claimed to use the system in different environments, which require different setups.

Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaglio (EP 0 389 446) in view of Salo (6,760,098).

With respect to claims 5,7, Zaglio discloses a refractometer comprising: a prism 1 (fig 2) having an interface surface 5 (fig 2), the interface surface being providable with a sample; and a sample stage 4 (fig 1) arranged surrounding said interface surface.

Zaglio does not disclose a sample stage includes a non-adhesive coating. Salo discloses a refractometer using a polytetrafluoroethylene or Teflon material (column 3, lines 39-40) for non-adhesive coating. It would have been obvious to modify Sharma's sample stage with a non-adhesive coating taught by Salo to clean the system easier.

With respect to claim 6, the references disclose all the claimed limitations except for a material of the coating includes metal and particles of fluorocarbon polymer evenly distributed therein. However, it would have been obvious to modify Zaglio with the claimed coating for measuring different types of sample. Further, it would have been obvious to modify Zaglio by evenly distributing the material to facilitate the measuring.

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With respect to claim 8, the references disclose all the claimed limitations except for the coating material includes 20-26 vol% fluorocarbon polymer or the diameter of the particles of the fluorocarbon polymer between 0.2 - 0.3 μm . However, it would have been obvious to modify Zaglio with the claimed coating for measuring different types of sample.

With respect to claim 9, refer to discussion in claim 8 above for the diameter of the particles of the fluorocarbon polymer between 0.2 - 0.3 μm .

With respect to claim 10, Zaglio does not disclose coating the interface of the surface with fluorocarbon polymer material. However, it would have been obvious to modify Zaglio by coating the interface surface with the claimed material remove the sample from the prism easier.

Allowable Subject Matter

Claims 11-13,16-20 are allowed.

As per claim 11, the claim is allowed for reasons as indicated in the office action mailed on 04/09/2007.

As per claim 12, the prior arts of record, taken alone or in combination, fail to disclose or render obvious a filter means arranged between the interface surface and the photoelectric sensor, wherein the filter comprises: a wavelength filter that configured

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to selectively allow transmission of light having a wavelength within a prescribed region, including wavelengths of light of the light source and a polarizer configured to selectively allow transmission of linearly polarized light, wherein said filter is formed as one integrated body, laminating said wavelength filter and said polarizer to each other, which structurally arranged and functionally operated as claimed in claim 12.

As per claims 18,20, the claims are allowed for reasons as indicated in the office action mailed on 04/09/2007.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T. Nguyen whose telephone number is (571) 272-2424. The examiner can normally be reached on T-F 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on (571) 272-2800 Ext. 86. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tu T. Nguyen
Primary Examiner
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09/15/2007